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10/731,814

12/09/2003

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CU-3482 RJS

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EXAMINER

JACOB, MARY C

ART UNIT

PAPER NUMBER

2123

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/731,814

Applicant(s)

ANDO ET AL.

Examiner

Mary C. Jacob

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. The response filed 1/30/07 has been received and considered. Claims 1-4, 6-16 have been presented for examination.

Specification

2. The objections to the disclosure recited in the Office Action dated 10/31/06 have been withdrawn in response to the amendments to the specification filed 1/30/07.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The rejections of claims under 35 USC 112, second paragraph, recited in the Office Action dated 10/31/06, not repeated below, have been withdrawn in response to the amendments to the claims, filed 1/30/07.

5. Claims 1-4, 6-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 1 and 14 recite, "thereby to form ingredient-determined paint". It is unclear whether this paint is "actual" paint or a "formula" for paint. If it is actual paint, the limitations of claim 8 would be repetitive and it would further be unclear how actual paint is "formed".

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-4, 6-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims appear to be a recitation of abstract ideas, for example, "determining ingredients", "predicting performances", "verifying the predicted performances", and further, fail to produce a concrete, useful or tangible result. The steps of "determining ingredients", "predicting performances", "verifying the predicted performances" do not recite an output or use of a "real world result". Applicant's remarks, (page 6, paragraph 5) recite that the claims have been amended to include "forming an ingredient determined paint". However, as noted above in the rejections of the claims under 35 USC 112, second paragraph, it is unclear whether the paint being formed is "actual" paint or just a formula for paint. Since the "formed" paint is used to further "predict performances", it appears that the "formed" paint is a formula that remains embodied within the computer that is further used in this prediction step. There is no output of a final, designed paint, whether it is actual paint or a formula for paint.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-4, 6, 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder et al (US Patent 5,907,495).

11. Snyder et al teaches: (claims 1 and 14) a method of designing paint for a server computer, comprising the steps of: acquiring color numerical information of a designated color from a client computer connected to the server computer (column 3, lines 32—47; column 4, lines 9-26; column 10, lines 53-60); determining ingredients of the paint based on the acquired color numerical information and paint ingredient information (column 2, lines 10-13; column 11, lines 61-65; Figure 4, elements 405-409); (claims 2 and 15) converting color information corresponding to a color into the

color numerical information (column 3, lines 20-47); (claim 3) wherein the client computer has a three dimensional color display unit through which the designated color is input (column 4, lines 16-26; Figure 6 and description); (claim 4) wherein the ingredients of the paint are determined by computer color matching (column 11, lines 45-60); (claim 6) wherein the color numerical information acquired from the client computer is one of a multi angle spectral reflection factor and a various angle spectral reflection factor (column 3, lines 41-61); (claim 8) a method of producing paint, comprising the steps of: designing the paint as claimed in claim 1 and producing the ingredient-determined paint (column 8, lines 57-63; Figure 2, elements 205-207; Figure 4, elements 407-409); (claim 9) mixing paint ingredients at a painting line side based on the determined ingredients thereby to form the ingredient-determined paint as claimed in claim 1 (column 8, lines 57-63; Figure 2, elements 205-207; Figure 4, elements 407-409); (claim 10) painting an object with the produced paint as claimed in claim 8 (column 8, lines 57-63; Figure 2, elements 205-207; Figure 4, elements 407-409); (claim 11) painting an object with the mixed paint as claimed in claim 9 (column 8, lines 57-63; Figure 2, elements 205-207; Figure 4, elements 407-409); (claim 12) a computer program for causing a computer to perform the method of designing paint as claimed in claim 1 (column 8, line 63-column 9, line 3; column 12, lines 14-26; Figure 7). As to claim 13, Snyder et al teaches a computer program performing the method of designing paint as claimed in claim 1 (column 8, line 63-column 9, line 3; column 12, lines 14-26; Figure 7), such as Microsoft Excel, and it is understood that this computer program

must be stored on a computer readable recording medium in order to be executed to perform the method as taught by Snyder et al.

12. Snyder et al does not expressly teach (claims 1, 14) predicting performances of the ingredient determined paint based on paint performance prediction information, verifying the predicted performances of the ingredient-determined paint, wherein at least one of painting workability, coating film performance, and paint performance is predicted as the performance of the ingredient-determined paint.

13. Snyder et al teaches that paint validation, the successful conformance testing of paint against predetermined criteria, is well known in the art, and that validated paint has known physical properties and performance characteristics including adhesion characteristics, resistance to sag, high humidity, durability, chip resistance and ultra-violet exposure durability (column 6, lines 39-48).

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the design of paint as taught by Snyder et al to further include the prediction and verification of the performance of the paint since Snyder et al teaches that paint validation, the successful conformance testing of paint against predetermined criteria, is well known in the art (column 6, lines 39-48).

15. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder et al as applied to claims 1 and 14 above, in view of Stat-Ease, Inc. ("Design-Expert Software Version 6 User's Guide, pages 1-1-1-3, 7-1-7-38, 2000), herein referred to as "Stat-Ease".

16. Snyder et al teaches predicting and verifying the predicted performance of ingredient-determined paint.

17. Snyder et al does not expressly teach wherein the step of verifying the predicted performances of the ingredient-determined paint further comprises the step of representing goodness of fit with discrete value between required performances stored in a database and the predicted performances of the ingredient-determined paint.

18. Stat-Ease teaches Design-Expert software that is used for design of experiments that is used to optimize a product or process being designed and offers the designer additional experimental designs, flexibility and various analysis tools (pages 1-1-1-2). Stat-Ease teaches the use of Design expert for mixture experiments (page 7-1, paragraph 1), wherein the mixture is designed by entering mixture components (pages 7-2-7-5), the experiment on the mixture is run (page 7-5, last paragraph) and the results are analyzed by studying the goodness of fit of the results, providing a list of actual verses predicted response values, plotting residuals verses predicted values, and a plot to show deviation of a mixture from a reference blend (pages 7-10-7-17).

19. Snyder et al and Stat-Ease are analogous art since they are both directed to the design of a mixture and the prediction and verification of the performance of the mixture.

20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the predicting and verifying the predicted performance of ingredient-determined paint as taught by Snyder et al to further include representing goodness of fit with discrete values between the required performance and the predicted performance of a mixture as taught by Stat-Ease since Stat-Ease teaches

Design-Expert software that is used for design of experiments that is used to optimize a product or process being designed and offers the designer additional experimental designs, flexibility and various analysis tools (pages 1-1-1-2).

Response to Arguments

21. Applicant's arguments filed 1/30/07 have been fully considered but they are not persuasive.

22. Applicant recites that they fail to consider Snyder (column 6, lines 39-48) to disclose, "wherein at least one of painting workability, coating film performance and paint performance is predicted as the performance of the ingredient determined paint" (page 6, paragraph 7).

23. Snyder teaches the validation of paint against predetermined criteria is well known in the art. It is understood that this validation includes determining predicted performances of paint that include the prediction of at least "paint performances" that include adhesion characteristics, resistance to sag, high humidity durability, chip resistance and ultra-violet exposure durability, and then verifying these predicted performances against predetermined criteria.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2123

25. US Patent Application Publication (US2006/0011259) teaches a device for instant manufacture of customized paint wherein the device will determine the exact proportion of ingredients of the paints based on customer input and further, mixing and dispensing the paint.

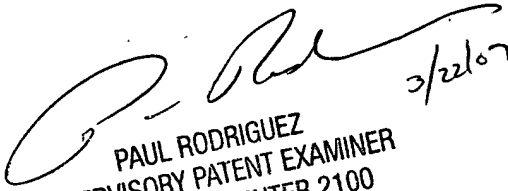
26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary C. Jacob whose telephone number is 571-272-6249. The examiner can normally be reached on M-F 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary C. Jacob
Examiner
AU2123

MCJ
3/22/07


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3/22/07